

28-29-1600. Land-spreading; definitions and adoptions. (a) As used in K.A.R. 28-29-1600 through K.A.R. 28-29-1608, each of the following terms shall have the meaning specified in this regulation:

(1) "Application" means land-spreading application. This term shall include the forms provided by the KCC and all other required submissions.

(2) "Department" means Kansas department of health and environment.

(3) "Drilling waste" means used drilling mud and cuttings generated by the drilling of oil and gas wells or related injection wells that are permitted by the KCC or by the equivalent permitting authority in the state in which the well is located. This term shall not include hydraulic fracturing fluids.

(4) "GPS" means global positioning system.

(5) "Habitable structure" means any structure that is occupied by humans or maintained in a condition that allows it to be occupied by humans. This term shall include dwellings, churches, schools, care facilities, public buildings, office buildings, commercial buildings, and industrial buildings.

(6) "KCC" means Kansas corporation commission.

(7) "Land-spreading" means the disposal of drilling waste by spreading the drilling waste on the land. This term shall not include the use of drilling waste as a product, as described in K.S.A. 65-3409 and amendments thereto, including the use of drilling waste in the construction and maintenance of roads and ponds.

(8) "Land-spreading worksheet" means the land-spreading rate calculation worksheet

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY *SG*

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

provided by the KCC.

(9) "NORM" means naturally occurring radioactive material.

(10) "NORM level" means the concentration of residual NORM radium-226 and radium-228 and their progeny as measured in becquerels per kilogram (Bq/kg) or picocuries per gram (pCi/g).

(11) "Operator" means operator, as defined in K.A.R. 82-3-101, of each well that generated the drilling waste.

(12) "Secretary" means secretary of health and environment.

(13) "Water-based drilling mud" means drilling mud that meets both of the following conditions:

(A) The drilling mud consists primarily of bentonite suspended in water.

(B) The liquid component of the drilling mud consists of no more than six percent oil or any oil derivative, including diesel fuel and asphalt blend oil.

(b) The following documents are hereby adopted by reference:

(1) "Standard test method for particle-size analysis of soils," D422-63, published October 2007 by ASTM international; and

(2) section 3.2 on pages 40 through 65 of "soil survey field and laboratory methods manual," soil survey investigations report no. 51, version 1.0, issued in 2009 by the U.S. department of agriculture, natural resources conservation service. (Authorized by and implementing K.S.A. 2012 Supp. 65-3407c; effective P-_____.)

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY 

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

28-29-1601. Land-spreading; general requirements. (a) No person may land-spread without having obtained prior written approval from the KCC. Before drilling, each operator that wants to land-spread shall submit an application to the KCC.

(b) If the proposed land-spreading disposal area is more than 160 acres, the operator shall submit two or more applications for the disposal area. Each application shall describe no more than 160 acres.

(c) The approval shall remain in effect for three years after the date on which land-spreading commenced, with the following exceptions:

(1) If land-spreading has not commenced within one year after the approval is granted, the approval shall expire.

(2) One or more one-year extensions to the approval may be granted by the director of the KCC's conservation division based on the following:

(A) Certification from the operator that the information in the approved application has not changed; and

(B) the operator's history of compliance with the requirements of K.A.R. 28-29-1600 through 28-29-1608.

(d) Drilling waste from multiple wells may be disposed of on the approved land-spreading site during the approved disposal period. (Authorized by and implementing K.S.A. 2012 Supp. 65-3407c; effective P-_____.)

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY *GF*

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

28-29-1602. Land-spreading; application. Each operator that submits an application shall provide the operator name and the lease name on each part of the application that is not submitted directly on the forms provided by the KCC. The operator shall include the following items in the application:

(a) A nonrefundable application fee, as specified in K.S.A. 65-3407c and amendments thereto;

(b) certification that the drilling waste or the disposal site meets each of the following conditions:

(1) The drilling mud that will be used in each well that produces the drilling waste is water-based drilling mud;

(2) the predicted NORM level of the drilling waste meets the requirements of K.A.R. 28-29-1604. The operator shall submit an affidavit and supporting documentation as required by K.A.R. 28-29-1602(d)(7);

(3) no land-spreading has occurred at the disposal site in the past three years;

(4) the chloride concentration in the soil at the disposal site meets the requirements of K.A.R. 28-29-1604;

(5) the location of the disposal site meets the buffer zone requirements of K.A.R. 28-29-1604;

(6) the maximum slope at the site is eight percent or less;

(7) the depth of unconsolidated material at the surface is at least 24 inches;

(8) the soil at the site meets the requirements of K.A.R. 28-29-1604;

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY *sf*

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

(9) based on historical data or site conditions, the groundwater elevation in the uppermost aquifer underlying the disposal site is at least 10 feet below the ground surface;

(10) if the disposal site is irrigated, the chloride concentration of the irrigation water is less than 350 ppm; and

(11) there is no chloride groundwater contamination below the disposal site, based on the chloride contamination map provided by the department;

(c) for the operator, the following information:

(1) Operator license number;

(2) name;

(3) mailing address; and

(4) the following information about the contact person for the application:

(A) Name;

(B) telephone number;

(C) facsimile number, if available; and

(D) electronic mail address, if available;

(d) for each well from which drilling waste will be generated, the following information:

(1) If the well is permitted in a state other than Kansas, the name and telephone number of the state authority that permitted the well;

(2) the location of the well, including the following:


(A) The state and county in which the well is located;

(B) the legal description of the well;

(C) the number of feet the well is located from the north or south section line and the east or

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY 

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

west section line; and

(D) the latitude and longitude of the well, which shall be determined using GPS;

(3) the lease name;

(4) the well number;

(5) the American petroleum institute (API) number;

(6) the expected spud date, as defined in K.A.R. 82-3-101;

(7) an affidavit on a form provided by the KCC, according to the following requirements:

(A) The operator shall certify that the predicted NORM level of the drilling waste meets both of the following conditions:

(i) The maximum predicted NORM level in the drilling waste is no more than 1.5 times the highest NORM level found in drilling waste samples collected from Kansas wells. A summary of NORM levels found in drilling waste samples collected from Kansas wells shall be maintained by the department and provided to any person upon request; and

(ii) the maximum predicted NORM level in the drilling waste is no more than 370 Bq/kg (10 pCi/g);

(B) the operator shall make the certification based upon data from wells drilled through the same geological formations as those of the well identified in the land-spreading application; and

(C) the operator shall include on the affidavit the maximum predicted NORM level of the drilling waste, according to the following:

(i) If the well will be drilled through formations for which the department has summarized and provided data, the operator may use this data to determine the maximum predicted NORM level of the drilling waste;

DEPT. OF ADMINISTRATION

ATTORNEY GENERAL

MAY 20 2013

MAY 23 2013

APPROVED

APPROVED BY *sf*

(ii) if the well will be drilled through formations for which the department has not summarized and provided data, the operator shall submit to the KCC all information available to the operator that can be used to predict the maximum NORM level in the drilling waste; and

(iii) if the NORM level of a formation is dependent on geographic location, the operator shall use that information to determine the maximum predicted NORM level of the drilling waste;

(8) a list of the expected components of the drilling mud and a detailed list of all additives, including the product name and the constituents of each additive; and

(9) a sampling and analysis plan that meets the requirements of K.A.R. 28-29-1605 to determine the chloride concentration of the drilling waste. The plan shall describe the following:

(A) The sampling rate;

(B) the procedures that will be used to collect the samples; and

(C) the procedures that will be used to prepare the samples for analysis;

(e) for the proposed disposal site, the following information:

(1) The name and mailing address of the property owner;

(2) the size of the site, as measured in acres;

(3) the legal description of the site;

(4) a description of current land use at the site and surrounding areas;

(5) documentation of all land-use restrictions and zoning restrictions for the site;

(6) documentation of all local permits that are required for land-spreading at the site;

(7) the distance and direction from the site to the nearest habitable structure;

(8) if the site is irrigated, the chloride concentration in the irrigation water in parts per million. The concentration shall be determined by a laboratory that is accredited for chloride


DEPT. OF ADMINISTRATION

GENERAL

MAY 20 2013

MAY 23 2013

APPROVED

APPROVED BY 

analysis by the secretary;

(9) the depth to the water table and a description of how the depth was determined;

(10) the direction of groundwater flow under the site, if known;

(11) an aerial map of the site. The map shall be detailed enough to locate the site or to determine directions to the site from the nearest highway and shall include the following:

(A) A north arrow and scale;

(B) the location of the site and the property boundaries; and

(C) each of the following features if that feature is located within one-half mile of the site:

(i) Habitable structures;

(ii) waters of the state;

(iii) perennial and intermittent streams;

(iv) ponds, lakes, and wetlands;

(v) domestic water wells;

(vi) municipal wells;

(vii) drainage swales, ditches, and all other physical features that channel overland flow; and

(viii) all other relevant features;

(12) a topographic map of the site that shows the slope of the ground to be used for land-spreading;

(13) a cell identification map that shows a grid dividing the site into cells. Each cell shall cover an area of no more than 10 acres. The map shall include the following information:

(A) The legal description of the site;

(B) the county in which the site is located;

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY *sf*

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

(C) delineation of the boundary of the land-spreading area and each cell within the land-spreading area, based on one or both of the following:

(i) Physical references and measurements; or

(ii) GPS measurements;

(D) a unique label for each cell;

(E) the location of each soil sample that was collected to provide information for the application;

(F) the chloride concentration of the soil within each cell, as determined according to the requirements of K.A.R 28-29-1603;

(G) the soil texture or textures of the site, as determined according to the requirements of K.A.R. 28-29-1603;

(H) the depth of unconsolidated material at the site;

(I) the areas that receive irrigation;

(J) the areas where vegetation will be established;

(K) the areas where conditions to support grain crops will be established;

(L) the areas where land restoration, other than establishing vegetation or conditions to support grain crops, is planned;

(M) the property boundaries;

(N) the ownership and use of adjacent properties; and

(O) the buffer zones required by K.A.R. 28-29-1604;

(14) documentation and analyses supporting all of the chloride concentration and soil texture information provided on the cell identification map, including laboratory chain-of-custody

DEPT. OF ADMINISTRATION

ATTORNEY GENERAL

MAY 20 2013

MAY 23 2013

APPROVED

APPROVED BY SF

documents; and

(15) a copy of the United States department of agriculture's soil survey map for the site;

(f) documentation that the owner of the proposed disposal site has agreed to the land-spreading, which shall be submitted on a form provided by the KCC;

(g) a site access agreement that grants access to the proposed disposal site to the department and the KCC for the purposes of observation, inspection, and sampling, which shall be submitted on a form provided by the KCC;

(h) a description of the proposed land-spreading procedures, including descriptions of the following:

(1) The manner in which the drilling waste will be stored at the site of generation;

(2) the processes and equipment that will be used to spread the drilling waste at the land-spreading site;

(3) the manner in which the equipment will be operated to ensure that the drilling waste is spread at the approved rate. The description shall include information on the boom width, flow rate, ground speed, and all other factors that will be used to control the land-spreading rate; and

(4) if the operator is required by K.A.R. 28-29-1607 to incorporate the drilling waste into the soil, the processes and equipment that will be used to incorporate the drilling waste into the soil;

(i) a contingency plan that describes how drilling waste will be managed if land-spreading is not allowed due to either of the following:

(1) Weather restrictions; or

(2) the drilling waste exceeding the composition limitations specified in K.A.R. 28-29-1607;

(j) a plan describing how the land-spreading area will be restored after land-spreading,

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY 

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

including establishment of vegetation or conditions to support grain crops. If the land-spreading area is not cropland, the plan shall include the erosion-control measures that will be implemented until vegetation is established; and

(k) any other relevant information required by the KCC to evaluate the application.

(Authorized by and implementing K.S.A. 2012 Supp. 65-3407c; effective P-_____.)

DEPT. OF ADMINISTRATION

ATTORNEY GENERAL

MAY 20 2013

MAY 23 2013

APPROVED

APPROVED BY *8f*

28-29-1603. Land-spreading; sampling and analysis of soils. Each operator that submits an application to the KCC shall meet all of the following requirements:

(a) Sample collection for chloride analysis. For each cell, as identified on the cell identification map submitted with the application, at least four representative core samples shall be collected according to the following requirements:

- (1) Each core shall sample the top 12 inches below the surface.
- (2) For each cell, all samples from that cell shall be combined and thoroughly mixed.
- (3) The combined samples from each cell shall have a volume of at least one pint.
- (4) The label of each sample shall match the unique label of the cell from which the sample was collected, as indicated on the cell identification map submitted with the application.

(b) Chloride analysis. The soil shall be analyzed for chloride concentration by a laboratory that meets one or both of the following conditions:

- (1) The laboratory is accredited for chloride analysis by the secretary.
- (2) The laboratory is a participant in the North American proficiency testing program for chloride analysis.

(c) Sample collection for soil texture analysis. For each cell, as identified on the cell identification map submitted with the application, core samples from at least four representative sampling locations shall be collected according to the following requirements:

- (1) Each core or set of cores shall sample at least the top 24 inches below the surface.
- (2) Each sampling location shall be continuously sampled from the ground surface to the total depth required to provide the information for the application.
- (3) Each core or set of cores shall provide a minimally disturbed profile of the soil at that

ATTORNEY GENERAL

MAR 13 2013

APPROVED BY 

DEPT. OF ADMINISTRATION

MAR 01 2013

APPROVED

sampling location.

(4) Soil samples shall not be combined with samples from other locations.

(5) Each core shall be labeled in a manner that corresponds to the unique label of the cell from which the core was collected, as indicated on the cell identification map submitted with the application.

(d) Soil texture analysis. The soil texture shall be determined by one of the following:

(1) An agronomist with at least a bachelor of science degree in agronomy or a soil scientist with at least a bachelor of science degree in soil science. The agronomist or soil scientist shall perform the following:

(A) Evaluate the site in person;

(B) determine the soil texture using the feel method described in "soil survey field and laboratory methods manual," which is adopted by reference in K.A.R. 28-29-1600; and

(C) provide documentation characterizing the site; or

(2) a laboratory, according to one or both of the following requirements:

(A) The laboratory shall analyze the soil using methods described in section 3.2 of the "soil survey field and laboratory methods manual," as adopted by reference in K.A.R. 28-29-1600, and shall be a participant in the North American proficiency testing program for those methods; or

(B) the laboratory shall analyze the soil using the method described in "standard test method for particle-size analysis of soils," as adopted by reference in K.A.R. 28-29-1600, and shall be accredited by the American association of state highway and transportation officials (AASHTO) materials reference laboratory (AMRL) proficiency sample program for that method.

ATTORNEY GENERAL

MAR 13 2013

APPROVED BY *af*

DEPT. OF ADMINISTRATION

MAR 01 2013

APPROVED

(e) Soil texture classification. Each soil sample shall be classified by texture class or subclass according to the texture class table and the texture triangle on page 45 of the “soil survey field and laboratory methods manual,” as adopted by reference in K.A.R. 28-29-1600.

(Authorized by and implementing K.S.A. 2012 Supp. 65-3407c; effective

P-_____.)

GENERAL

MAR 13 2013

APPROVED BY

DEPT. OF ADMINISTRATION

FEB 27 2013

APPROVED

28-29-1604. Land-spreading; conditions for disposal. Disposal of drilling waste by land-spreading shall be approved by the KCC only if the operator has certified, and provided supporting documentation if required by K.A.R. 28-29-1602, that the drilling waste and the disposal site meet all of the following conditions:

(a) Drilling waste. The drilling waste meets both of the following conditions:

(1) The drilling mud that will be used in each well that will produce the drilling waste is water-based drilling mud.

(2) The predicted NORM level, as defined in K.A.R. 28-29-1600, meets both of the following conditions:

(A) The maximum predicted NORM level is no more than 1.5 times the highest NORM level found in drilling waste samples collected from Kansas wells.

(B) The maximum predicted NORM level is no more than 370 Bq/kg (10 pCi/g).

(b) Previous land-spreading. No land-spreading has occurred at the disposal site in the past three years.

(c) Soil chloride concentration. The chloride concentration in the soil at the disposal site is less than the following:

(1) 300 parts per million (ppm) if the disposal site has previously been used for land-spreading; and

(2) 500 ppm if the disposal site has not previously been used for land-spreading.

(d) Buffer zones. The disposal site is located as follows:

(1) At least 100 feet from each of the following:

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY 

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

(A) Each intermittent stream; and

(B) each drainage swale, ditch, or other physical feature that channels overland flow;

(2) at least 200 feet from each of the following:

(A) The property boundary, unless the adjacent property ownership and use are the same as the property ownership and use of the disposal site;

(B) each perennial stream; and

(C) each freshwater pond, lake, and wetland;

(3) at least 500 feet from each habitable structure;

(4) at least 1,000 feet from each water well that is being used or could be used for domestic or agricultural purposes. If the applicant demonstrates to the KCC that the disposal site is hydrogeologically downgradient from the water well, this distance may be reduced to 500 feet; and

(5) one-half mile or more from each actively producing water well that is used for municipal purposes.

(e) Physical characteristics. The disposal site meets the following conditions:

(1) The maximum slope at the site is eight percent or less.

(2) The depth of unconsolidated material at the surface is at least 24 inches.

(3) Within the top six feet below the surface, there is at least one layer of soil that meets all of the following conditions:

(A) Is continuous across the site;

(B) is at least 12 inches thick;

(C) is above the shallowest consolidated layer; and

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY *g*

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

(D) consists of one or more of the following soil textures:

(i) Clay, silty clay, or sandy clay;

(ii) silt; or

(iii) loam, clay loam, silty clay loam, sandy clay loam, silt loam, fine sandy loam, or sandy loam.

(4) Based on historical data or site conditions, the groundwater elevation in the uppermost aquifer underlying the disposal site is at least 10 feet below the ground surface.

(f) Irrigation. If the disposal site is irrigated, the chloride concentration of the irrigation water is less than 350 ppm.

(g) Contamination. There is no chloride groundwater contamination below the disposal site, based on the chloride contamination map provided by the KCC. (Authorized by and implementing K.S.A. 2012 Supp. 65-3407c; effective P-_____.)

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY *sf*

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

28-29-1605. Land-spreading; sampling and analysis of drilling waste. Each operator that conducts land-spreading shall meet all of the following requirements:

(a) Samples of the drilling waste shall be collected using a procedure that ensures that the samples are representative of the waste.

(b) Samples shall be collected according to the following rates:

(1) For drilling waste stored in tanks, at least one sample from each tank;

(2) for earthen pits containing not more than 12,500 barrels of drilling waste, at least four samples, each from a different quadrant of the pit; and

(3) for earthen pits containing more than 12,500 barrels of drilling waste, at least one sample from each quadrant of the pit, plus at least one additional sample for every additional 1,000 barrels of drilling waste contained in the pit.

(c) Samples of the drilling waste shall be analyzed for chloride concentration in parts per million by one of the following methods:

(1) Sending the samples to a laboratory that meets at least one of the following conditions:

(A) The laboratory is accredited for chloride analysis by the secretary; or

(B) the laboratory is a participant in the North American proficiency testing program for chloride analysis; or

(2) performing a field analysis of the samples. For calculating land-spreading rates, each chloride concentration determined using field analysis shall be multiplied by 1.2, as specified in the land-spreading worksheet.

(d) If the drilling waste is analyzed in the field, all of the following requirements shall be met:

(1) One or more of the following methods shall be used to analyze the drilling fluid filtrate:

ATTORNEY GENERAL

MAR 13 2013

APPROVED BY 

DEPT. OF ADMINISTRATION

MAR 04 2013

APPROVED

(A) Silver nitrate titration;

(B) mercuric nitrate titration;

(C) direct measurement using a chloride ion selective electrode;

(D) calculation of concentration based on electrical conductivity, using the equations $EC \times 0.64 = TDS$ and $TDS \times 0.61 = CC$, where EC means electrical conductivity in micromhos or microsiemens per centimeter, TDS means total dissolved solids, and CC means chloride concentration in parts per million; or

(E) an alternate field method proposed by the operator and approved in writing by the director of the KCC's conservation division.

(2) Each analysis shall be accompanied by the following information:

- (A) The manufacturer's information sheet for the equipment that will be used;
- (B) the calibration requirements for the equipment;
- (C) the methods that will be used to prepare the sample for testing;
- (D) the chloride concentration range of the method; and
- (E) any limitations of the method.

(3) The operator shall ensure that each person that analyzes drilling waste in the field is qualified to perform each analysis. The operator shall maintain documentation of the qualifications, including training and experience, of each person that analyzes drilling waste in the field.

(4) All equipment that is used for analyzing drilling waste in the field shall be calibrated according to the manufacturer's instructions before the analyses are conducted. For each piece of equipment, a log documenting all calibrations shall be maintained. (Authorized by and implementing K.S.A. 2012 Supp. 65-3407c; effective P-_____.)

ATTORNEY GENERAL

MAR 13 2013

APPROVED BY 

DEPT. OF ADMINISTRATION

MAR 04 2013

APPROVED

28-29-1606. Land-spreading; determination of land-spreading rates. Before land-spreading may occur, each operator that plans to land-spread shall perform the following for each cell, as identified on the cell identification map, on which drilling waste will be land-spread:

(a) Analyze the drilling waste to be land-spread at the disposal site to determine the chloride concentration, as specified in K.A.R. 28-29-1605; and

(b) based on the chloride concentrations of the drilling waste and chloride concentrations of the soil in the cell, determine the maximum land-spreading rate according to the following requirements:

(1) The determination shall be based on the land-spreading worksheet; and

(2) the land-spreading rate shall ensure that, after land-spreading, both of the following requirements are met:

(A) Assuming uniform distribution of the chloride through the upper 12 inches of the soil, the total chloride concentration shall be 900 ppm or less; and

(B) the average thickness of the drilling waste across the site shall be no greater than two inches, and the drilling waste shall be distributed as uniformly as possible across the site.

(Authorized by and implementing K.S.A. 2012 Supp. 65-3407c; effective

P-_____.)

DEPT. GENERAL

MAR 13 2013

APPROVED BY 

DEPT. OF ADMINISTRATION

MAR 04 2013

APPROVED

28-29-1607. Land-spreading; operating and management requirements. Each operator that conducts land-spreading shall meet all of the following requirements:

(a) Storage of drilling waste. The operator shall store the drilling waste at the site of generation in pits permitted by the KCC or in tanks until the drilling waste is transported to the disposal site. The operator may store drilling waste in sealed tanks at the disposal site for no more than 24 hours before the drilling waste is land-spread.

(b) Time frame for land-spreading. The operator shall comply with the following:

(1) Complete the land-spreading within the approval period specified in K.A.R. 28-29-1601; and

(2) notify the appropriate KCC district office at least 48 hours before land-spreading.

(c) Composition of drilling waste. The operator shall land-spread only if the composition of the drilling waste meets the following requirements:

(1) The chloride concentration of the drilling waste is less than 10,000 parts per million (ppm). The operator may blend drilling waste that has a chloride concentration greater than 10,000 ppm with drilling waste that has a chloride concentration of less than 10,000 ppm to create a combined drilling waste that has a chloride content of less than 10,000 ppm.

(2) The NORM level in the drilling waste, as identified through any subsequent sampling and analysis, remains consistent with the information submitted with the application. If the observed NORM level in the drilling waste is more than 370 Bq/kg (10 pCi/g), the operator shall immediately cease land-spreading and shall notify the KCC within two business days. The operator shall evaluate the condition of the land-spreading site to determine any potential site

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY *sf*

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

impact and perform all corrective measures required by the KCC or the department to protect human health or safety or the environment. The operator shall not conduct any additional land-spreading at the site unless authorized by the KCC.

(d) Weather restrictions. The operator shall not conduct land-spreading if at least one of the following conditions exists at the disposal site:

(1) Precipitation is occurring or, according to national weather service predictions, has a greater than 50 percent probability of occurring within 24 hours after the land-spreading is completed.

(2) The soil cannot readily absorb the moisture content of the drilling waste due to soil moisture content or frozen soil, or for any other reason.

(e) Land-spreading requirements. The operator shall land-spread according to all of the following requirements:

(1) The operator shall land-spread at a rate no greater than the land-spreading rate calculated using the land-spreading worksheet.

(2) The operator shall, as much as possible, land-spread so that the drilling waste has a uniform thickness over the disposal site.

(3) The operator shall limit the average thickness of the drilling waste to the calculated depth, unless the calculated depth is more than two inches. If the calculated depth is more than two inches, the operator shall limit the average thickness of the drilling waste to no more than two inches.

(4) The operator shall land-spread in a manner that prevents the drilling waste from either ponding on the disposal site or running off the disposal site or into buffer zones.

DEPT. OF ADMINISTRATION

ATTORNEY GENERAL

MAY 20 2013

MAY 23 2013

APPROVED

APPROVED BY *ST*

(5) The operator shall land-spread according to the methods described in the approved application. If any deviation from the approved methods occurs and the deviation could result in a chloride loading rate greater than the rate approved by the KCC, the operator shall report the deviation to the KCC by the end of the next business day.

(f) Incorporation. The operator shall incorporate the drilling waste into the soil if the precipitation in the county in which the disposal site is located averages more than 25 inches per year. The following counties and any county located east of these counties shall be designated as meeting this condition: Jewell, Mitchell, Lincoln, Ellsworth, Rice, Reno, Kingman, and Harper.

The operator shall incorporate the drilling waste into the soil using standard agricultural methods, including discing, plowing, knifing, and shallow injection. This procedure shall be performed as soon as possible and not later than 48 hours after land-spreading is completed. The operator shall incorporate the drilling waste into the soil according to the methods described in the approved application.

(g) Land restoration. The operator shall take steps to restore the land-spreading area as described in the approved application. (Authorized by and implementing K.S.A. 2012 Supp. 65-3407c; effective P-_____.)

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY *gf*

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

28-29-1608. Land-spreading; reporting and recordkeeping. Each operator that has conducted land-spreading shall meet all of the following requirements for each land-spreading site:

(a) Within 60 days after the conclusion of land-spreading, submit a land-spreading report to the KCC. The operator shall identify each part of the report by the KCC land-spreading approval number from the approved application. The land-spreading report shall contain the following items:

(1) The following information for each well from which the drilling waste was generated, on a form provided by the KCC:

(A) The operator name and license number;

(B) if the well is permitted in a state other than Kansas, the name and telephone number of the state authority that permitted the well;

(C) the location of the well, including the following:

(i) The state and county in which the well is located;

(ii) the legal description of the well;

(iii) the number of feet the well is located from the north or south section line and the east or west section line; and

(iv) the latitude and longitude of the well, as determined using GPS;

(D) the lease name;

(E) the well number;

(F) the American petroleum institute (API) number;

(G) the spud date, as defined in K.A.R. 82-3-101;

(H) verification that the drilling mud components are the same as those components

DEPT. OF ADMINISTRATION

ATTORNEY GENERAL

MAY 20 2013

MAY 23 2013

APPROVED

APPROVED BY *sf*

identified on the approved application;

(I) verification that the chloride concentration of the drilling waste is less than 10,000 parts per million (ppm); and

(J) the following information about the person performing the land-spreading, if different from the operator:

(i) The name of the individual or company;

(ii) the contact person's name;

(iii) the contact person's telephone number or cellular phone number, or both; and

(iv) the contact person's electronic mail address, if there is one;

(2) for the area that was actually used for land-spreading, an updated version of the cell identification map that was submitted with the application. The updated map shall include all information on the original cell identification map and the following information:

(A) The date or dates on which land-spreading occurred;

(B) the land-spreading contractor name;

(C) identification of each well from which the drilling waste was generated;

(D) for each tank and each pit that was used to store drilling waste, the area where that drilling waste was land-spread, according to the following requirements:

(i) The dimensions of the area used for land-spreading shall be added to the map, if the area used for land-spreading is different from the cell boundaries, and shall be based on either physical references and measurements or GPS measurements, or both; and

(ii) the tank and pit numbers shall correspond to the labels used in the land-spreading worksheet; and

(E) notation identifying the cells that were not used for land-spreading;

DEPT. OF ADMINISTRATION

ATTORNEY GENERAL

MAY 20 2013

MAY 23 2013

APPROVED

APPROVED BY 

(3) a description of the procedures that were used to sample the drilling waste and the sampling rates;

(4) a description of the methods that were used to analyze the drilling waste;

(5) the results of each analysis of the drilling waste;

(6) the completed land-spreading worksheet;

(7) for each cell within the land-spreading site, the following information:

(A) The volume of drilling waste that was spread on the cell; and

(B) a description of the land-spreading procedures that were used, including the following:

(i) Documentation of each variation from the processes or equipment described in the approved application;

(ii) a description of each deviation from the operating and management requirements of K.A.R. 28-29-1607; and

(iii) if the drilling waste was incorporated into the soil, a statement of the maximum time period from land-spreading to incorporation; and

(8) if corrective measures were required by the KCC or the department at the land-spreading site, the following information:

(i) A description of the conditions warranting the corrective measures;

(ii) a copy of the sampling and analysis plan, if this plan was required;

(iii) the results of all sampling and analyses that relate to the corrective measures;

(iv) a description of the corrective measures implemented at the land-spreading site; and

(v) a description of all long-term site monitoring or land-use restrictions associated with the site conditions;

(b) within 12 months after the conclusion of land-spreading, submit to the KCC a report

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY 

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED

describing the timing and success of establishing vegetative cover or conditions suitable to support crops. If the establishment of vegetative cover or conditions suitable to support crops was unsuccessful, the operator shall submit a new plan describing how vegetative cover or conditions suitable to support crops will be established. The operator shall identify the report, plan, or both, by the KCC land-spreading approval number from the approved application; and

(c) maintain the following documents, identified by the KCC land-spreading approval number from the approved application, for at least five years after the land-spreading occurs and make the documents available to the department and the KCC, upon request:

- (1) The results of all analyses;
- (2) a copy of each application and approval;
- (3) a copy of each land-spreading report and all required attachments; and
- (4) if any drilling waste was analyzed in the field, a copy of all calibration logs for each piece of equipment used and the qualifications of each person that performed the analyses. (Authorized by and implementing K.S.A. 2012 Supp. 65-3407c; effective P-_____.)

ATTORNEY GENERAL

MAY 23 2013

APPROVED BY *8f*

DEPT. OF ADMINISTRATION

MAY 20 2013

APPROVED